

Evaluation of oral hygiene practices and awareness among dental students in Namakkal district.

Sugumari Elavarasu,¹ Arthiie Thangavelu,² Santhosh Sekar,³ Jayashakthi Saravanan,⁴ Saranya Selvaraj⁵

ABOUT THE AUTHORS

1. Sugumari Elavarasu

Head of the Department
Department of Periodontics,
JKK Nattaraja Dental College,
Komarapalayam, Tamilnadu,
India.
drsugu@gmail.com

2. Arthiie Thangavelu

Senior Lecturer,
Department of Periodontics,
JKK Nattaraja Dental College,
Komarapalayam, Tamilnadu,
India.
arthivarman@gmail.com

3. Santhosh Sekar

PG student,
Department of Periodontics,
JKK Nataraja Dental College,
Komarapalayam, Tamilnadu,
India.
dr.santhoshsmids@gmail.com

4. Jayashakthi Saravanan

PG student.
Department of Periodontics,
JKK Nattaraja Dental College,
Komarapalayam, Tamilnadu,
India.
jaishakthe@gmail.com

5. Saranya Selvaraj

PG student.
Department of Periodontics,
JKK Nattaraja Dental College,
Komarapalayam, Tamilnadu,
India.
drsarancbe@gmail.com

Corresponding author –

Sugumari Elavarasu

Head of the Department
Department of Periodontics,
JKK Nattaraja Dental College,
Komarapalayam, Tamilnadu,
India.
drsugu@gmail.com

Abstract

Aim and objectives:

The aim of this study was to evaluate oral hygiene practices and awareness among dental students from three dental colleges in Namakkal district.

Materials and methods:

A cross sectional study was conducted among dental students from three dental colleges in Namakkal district. The oral hygiene knowledge among the study group was assessed through a questionnaire, with 16 questions.

Results:

A total of 471 students took part in the study. 85% students used a combination of vertical and horizontal type of brushing. The use of mouthwash was only 41%. About 66% students visited a dentist only in case of oral or dental problems. 12% had bleeding on brushing, 5% had bad breath.

Conclusion:

Dental students themselves fall short of their expectation. Dental students need to follow proper oral hygiene practices properly in order to educate the general public.

Keywords: Oral hygiene practices, oral hygiene awareness, tooth brushing.

Introduction

The oral cavity is an important part of the body.¹ Improving oral health is still a dream come true in developing countries like India.² Maintaining good oral health is a part of one's general health. For maintaining good oral health, oral selfcare practices have been proved to be an effective preventive method.³ For the better promotion of selfcare WHO has set the goals for the year 2020 as Recommended Oral Self Care (ROSC) which includes tooth brushing more than once a day, lesser consumption of sugar containing snacks once daily or rarely and regular use of fluoride containing tooth paste.³

Epidemiology studies are conducted to assess distribution of diseases among population.⁴ Periodontal diseases affect majority of adult populations. Bacterial plaque provides a suitable environment for pathogens to grow and colonize, and is the primary factor for development of periodontal diseases. Plaque control measures like tooth brushing, secondary methods and mouthwashes are effective in maintaining daily oral hygiene. Civilization and technical progress allows methods to control the bacterial plaque.³

Lack of professional care also is a important factor for increase in vulnerability to dental diseases.⁵ Environmental factors like use of tobacco also has detrimental effect on oral health. Many studies have shown tobacco usage and its direct relationship and the prevalence of periodontal disease.⁵

Dentists are role model to patients.³ As the dentists are the better guide to their patients, the oral self care among the dental professionals were evaluated to find the extent to which they follow the oral hygiene practices. This study was designed to study the oral hygiene practices and awareness among dental students from three

dental colleges of Namakkal district.

Material and methods:

A cross sectional study was conducted among dental students from three colleges in Namakkal (JKKN dental college, KSR dental college and Vivekanandha dental college for women) district. Before commencement of the study proper approval was received from ethical approval committee from JKKN dental college.

Questionnaire designed for the purpose of this study consisted of 16 questions. Questions related to oral hygiene practices, dietary habits, tobacco usage, frequency of visits to dentist and oral health problems were included.

Results:

A total of 471 students took part in the study. Among this 103 were male and 366 were female. The results showed all students used tooth brush and toothpaste. Among these students 85% practiced both vertical and horizontal type of brushing technique as shown in figure 1, 66% students brushed twice daily as shown in figure 2 and 77% students changed their brush once in three months as shown in figure 3.

The study showed about 75% students used additional oral hygiene aids like flossing or toothpick or interdental brushes. Only 41% students used mouthwash. 82% students practiced tongue cleaning as shown in figure 4. The study also showed about 99% students did not use tobacco in any form.

The study showed 95% students were aware of all dental procedures but only 66% students visited a dentist only in case of oral or dental problems. 59% students visited a dentist atleast once in 6 months as shown in figure 5.

The results showed 12% students had bleeding on brushing, 5% students had bad breath as shown in figure 6, but only 66% students did not have any decayed teeth.

Figure 2 Frequency of cleaning.

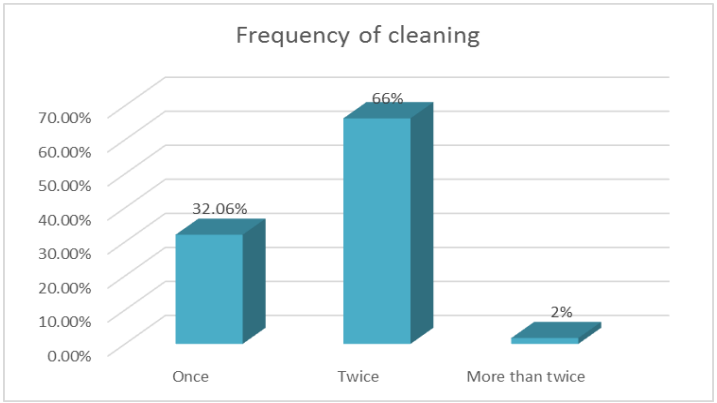


Figure 3 Frequency of changing tooth brush.

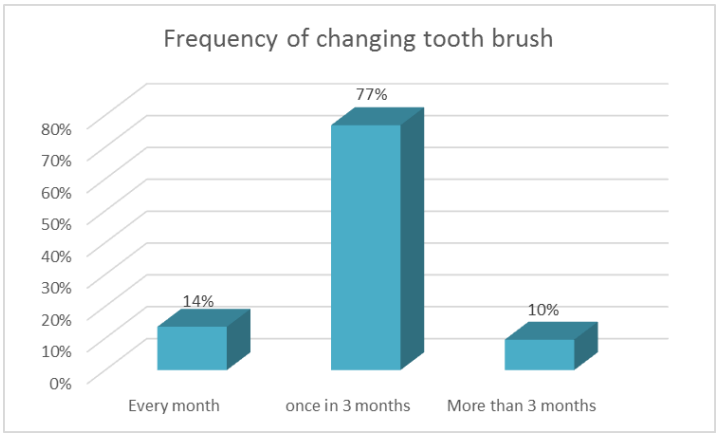


Figure 4 Use of oral hygiene aids, mouthwash and tongue cleaning.

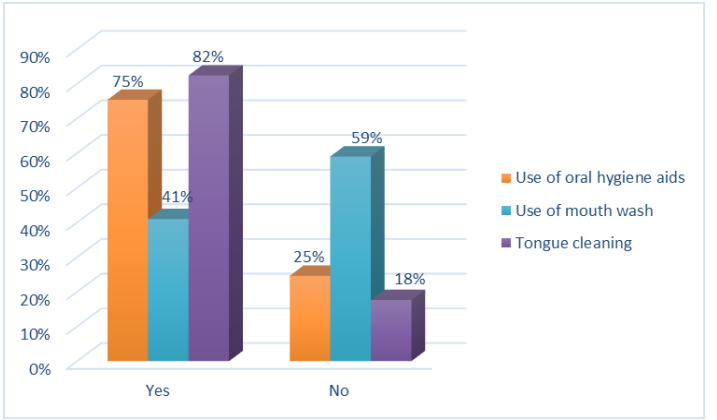


Figure 1: Method of tooth brushing.

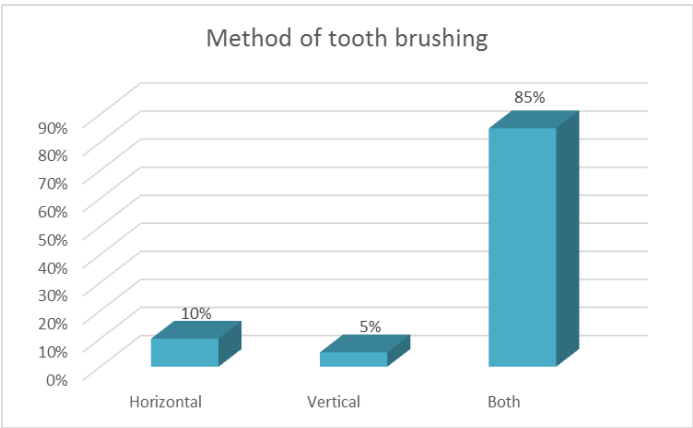


Figure 5 Frequency of visit to dentist/year.

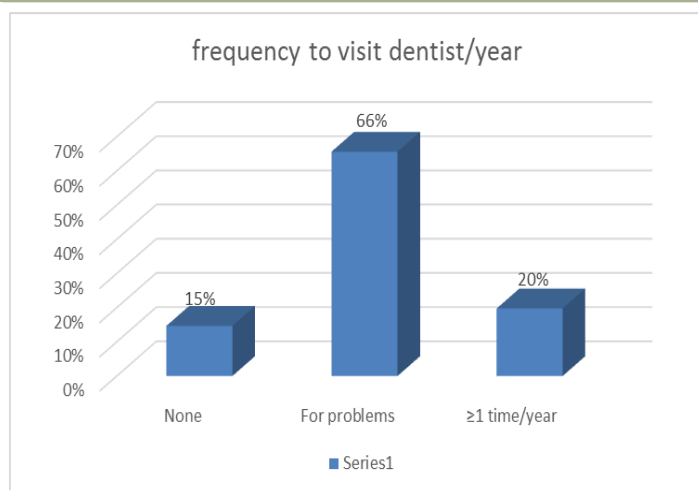
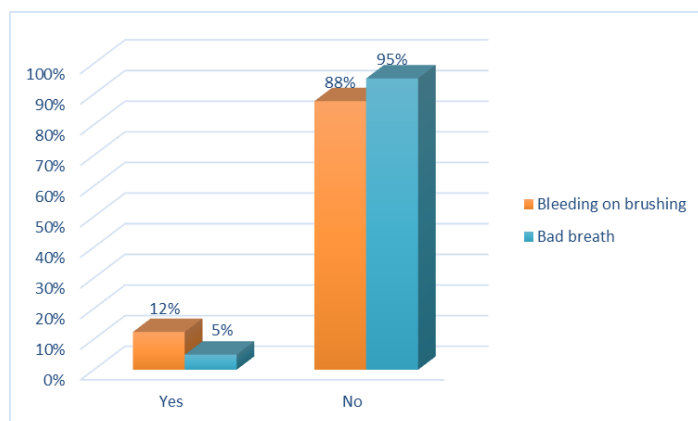


Figure 6 Bleeding on brushing and bad breath.



Discussion:

The study was conducted among 471 dental students from three dental colleges in Namakkal district. Among these majority were female (366) and 103 were male. As the dental students are future dentists they are the role model to the public and patients. This study was conducted to assess the oral hygiene practices and awareness among dental students.

The study showed that 100% students used toothbrush and tooth paste as their oral hygiene aid. This is in contrast to study conducted by Punitha et al (2011)² among rural children. It showed that 51% children used tooth brush and 45% used tooth paste. This high result among dental students could be due to their better knowledge and socioeconomic conditions.

In this study 66% students brushed twice daily, this was more when compared to findings of Gopinath et al(2010)³ who reported that 55.9% dentists brushed twice daily. The results were more when compared to a study conducted among adults by Wojciech et al(2012)¹ which showed 77% of adults brushed only once daily.

Among children it was only 49% according to WHO study. This shows increasing awareness about the importance of brushing among dental student. Various studies shows that less frequent tooth brushing was associated with high probability of having poor oral hygiene.⁶

In our study 51% students used fluoridated tooth paste. This was comparable to study conducted by Gopinath et al(2010)³ which showed 55% dentists used fluoridated tooth paste. According to a study conducted by Victoria et al(2003)⁵ among staff caring for older people their knowledge on topical effects and benefits of fluoride toothpaste was little. Studies have shown that fluorides prevent and arrest dental caries.⁵

In our study 85% of students practiced a combination of horizontal and vertical type of brushing technique. But this is in contrast to the study conducted among patients conducted by Arthiie et al(2014)⁷ which showed majority of them used horizontal type of brushing technique. But study conducted by Cristina et al(2007)⁴ showed that combined movement was superior to horizontal or vertical movements (Leonard technique). Studies show that adequate oral hygiene depend upon the quality of toothbrushing than on its frequency.⁴

In this study 77% students changed their brush once in three months. But this is in contrast to study conducted by Arthiie et al(2014)⁷ among patients which showed that only 28% changed their brush once in three months. A WHO study showed that 51% of children changed their brush only when its worn out. Quality of tooth brush increase the quality of tooth brushing.²

In our study 75% students used secondary oral hygiene aids like flossing/toothpick/interdental brushes/mouth wash. But a study conducted by Cristina et al (2007)⁴ showed very low proportion of people used secondary brushing techniques. A study conducted among dental patients by Arthiie et al(2014)⁷ showed that 95% of patients were not aware about secondary oral hygiene aids. 38% of dental students only used mouth wash regularly. A study conducted by Punitha et al(2011)² among rural children showed only 24% of them used mouth wash regularly. 82% students practised tongue cleaning in our study. This is contradictory to the study conducted among dental patients by Arthiie et al(2014)⁷, which showed only 35% patients did tongue cleaning. A study conducted by Victoria et al(2003)⁵ showed that secondary oral hygiene aids like flossing, mouthwash and tongue cleaning are important factors in preventing dental caries and periodontitis.

In our study 99% students did not use tobacco. But a study conducted by Arthiie et al(2014)⁷ showed 24% of dental patients were smokers. According to a study conducted by Gopinath et al(2010)³ 18.1% of dental professionals had used tobacco at some point or the other. According to a study conducted by Cristina et al(2007)⁴, smoking has a negative effect on periodontal health. The difference in our study and study conducted by Arthiie et al could be because our sample had large number of female students than male students.

According to this study 95% dental students knew about all dental procedures, 59% visited a dentist in less than six months but 66% of students visited a dentist only in case of oral or dental problems. This result is similar to study conducted by Arthie et al(2014)⁷ which showed 66% of dental patients visited a dentist only when there was a dental or oral problem. A study conducted in Norway among adults by Sarah et al(2012)⁸ showed that only 28% visited a dentist when in pain or lost a filling and 51% visited a dentist regularly. A study conducted in Southern Poland among adults by Wojciech et al(2012)¹ showed that only 8% visited a dentist for regular check up and 53% visited a dentist only in case of a tooth ache. A study conducted among dental professionals by Gopinath et al(2010)³ showed 35.7% visited a dentist only when there was a problem. This large variation in results could be because of difference in dental awareness among different societies around the world. This also shows that dentists themselves fall short of being in a position to educate the patients over regular dental checkups.

According to this study 12% students had bleeding on brushing, 5% had bad breath and 34% had decayed teeth. This is similar to a study conducted among dental professionals by Gopinath et al(2010)³, which showed 27.9% had decayed teeth. According to a study conducted among rural children by Punitha et al(2011)², dental caries was present in 76.54% children. The high dental caries rate among children could be due to lack of dexterity and knowledge among them to use oral hygiene aids.²

Conclusion:

Dentists are the guide to general public to maintain proper oral health and oral hygiene practices. But our study shows that the dental students themselves fall short of the expectations. This study shows that dental students need to increase their awareness in using fluoridated toothpastes and mouthwashes. Also the dental students should visit a dentist on a regular basis for dental checkups. This can prevent dental and periodontal problems. All these can be achieved by continued dental education and attitude change among dental students. So as future dentists its our duty to follow ourselves and also guide general public to have proper dental awareness and oral hygiene practices.

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